

algal growth. As Chari and Daniel (1952) stated, the colouration of the tadpoles matches well with the colour of the slaty rock — with the rocks covered with brown algae, it is very difficult to distinguish them. Adults were collected from the ground (amidst short grasses, in leaf litter and ditches, between and near railway tracks, on mud-paths) as well as from tree trunks up to one metre above the ground. Adults were not observed around the tadpoles' habitat and were collected far from the tadpoles' habitat. Abdulali (1954) had observed large numbers of adults on the wet rock cuttings by the railway tracks and on wet rocks in flowing streams (tadpoles were absent from the stream itself). Though McCann (1932) and Abdulali and Daniel (1954) reported that this species was diurnal, I collected several specimens in the monsoon at night.

**Behaviour:** The tadpoles lack a tail fin, and are therefore less adept swimmers. They are adapted to life on wet rocks rather than in ponds or streams. The strong, black, serrated beak helps in nibbling the algal growth on wet rocks. Tadpoles

were very active and agile, jumping onto the slippery surfaces when they were disturbed. They do not show any holding organs to cling on to wet, slippery rocks. Tadpoles in forelimb stage seem more active. I approached a group of tadpoles (most of which had forelimbs), and my slight movement made all the tadpoles jump to the bottom of the rocks from a height of 2 m. Some fell into the water running along the rocks. In the water they submerged to the bottom quietly and after for a few minutes came out of the water and climbed slowly on to their earlier location on the rock.

**Food:** The stomach contents revealed that the tadpoles had eaten large quantities of various species of diatoms (*Pinnularia*, *Navicula*, *Synedra*, *Cymbella* etc.) and a few species of filamentous algae.

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## 28. CANNIBALISM IN BUTTERFLY LARVAE

Cannibalism in butterfly larvae is reported by Moore (1912) and Deithier (1937). In Danianae it was first described by Field (1893), who recorded larvae of monarch butterfly attacking each other in captivity. Later Urquhart (1960) confirmed this observation and reported that larvae, besides attacking each other, also ate eggs. He further confirmed the observations of Balduf (1939) and Sweetman (1958) that cannibalistic behaviour in *Danaus* is abnormal and occurs under artificially crowded conditions in the laboratory. Brower (1960) conducted experiments on egg cannibalism in the monarch and queen butterflies *Danaus plexippus* and *D. gilippus*. This note deals with our observations *in vivo* and *in vitro* conditions. In July 1991 we were rearing common tiger *Danaus (Saltura) genutia* on the food plant *Ceropegia*

*aculeata* collected from BNHS land at Goregaon, Bombay. While collecting fresh leaves of the food plant for the captive larvae, we observed that a leaf was eaten on the edge. On turning it over we found a second instar larva busy eating an egg. This induced us to investigate further.

We collected a few leaves, each having a single egg on its underside, for further observations. When these leaves were placed in glass bottles already having a second instar larva in each, we found that after wandering for a while, the host larva started denting the egg and shortly thereafter continued nibbling at it, consuming its contents in less than five seconds.

Later we saw that a third instar larva on coming in contact with the egg first dented the egg and after moving about on the leaf around the egg,

returned to it and consumed its contents. During these experiments, we also observed that when a second instar larva of *Danaus genutia* came in contact with a fourth instar larva, the latter regurgitated a greenish fluid which dried in a few minutes. This is perhaps an item of chemical defence mistakenly triggered by tactile stimulus (see Rauch 1977).

A second instar larva of the blue tiger *Tirumala (Danaus) limniace* on *Marsdenia tenacissima* was collected along with three leaves, each having an egg. The larva, when it came in contact with the eggs, crawled on them and did not show any interest in eating them. However, in the evening NC found two newly hatched larvae and one egg missing.

One of us (MH) observed that while rearing larvae of *Acareia violae* on a garden variety of *Passiflora*, a newly formed pupa kept with three full-grown larvae in the morning was missing in the evening, presumably having been eaten by one of the mature larvae. An identical observation was made by Isaac Kehimkar (pers. comm.) while rearing the common rose *Pachliopta aristolochiae*. In his case a full-grown larvae kept with a pupa partially ate the latter before fresh leaves of *Aristolochia* could be furnished.

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December 3, 1991

MEENA HARIBAL

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### 29. FOOD PLANTS OF BLISTER BEETLE *MYLABRIS PUSTULATA* THUNB. (COLEOPTERA : CANTHARIDAE) FROM PT. CALIMERE WILDLIFE SANCTUARY, TAMIL NADU

TABLE 1  
FOOD PLANTS OF BLISTER BEETLE AT PT. CALIMERE SANCTUARY

Species	Family	Parts eaten
<i>Tribulus terrestris</i> L.	Zygophyllaceae	Flower
<i>Salacia chinensis</i> L.	Hippocrateaceae	Tender shoots
<i>Canavalia ensiformis</i> DC.	Papilionaceae	Flower
<i>Pongamia pinnata</i> (L.) Pierre	Papilionaceae	Flower
<i>Dichrostachys cinerea</i> (L.) W. & A.	Mimosaceae	Flower
<i>Prosopis chilensis</i> (Molina) S.	Mimosaceae	Flower
<i>Opuntia dillenni</i> (Ker-Gawl.) Haw.	Cactaceae	Flower, fruit
<i>Catunaregam spinosa</i> (Thunb.) Tiruvengadam	Rubiaceae	Flower
<i>Salvadora persica</i> L.	Salvadoraceae	Flower, fruit
<i>Ipomoea obscura</i> (L.) Ker-Gawl.	Convolvulaceae	Flower
<i>Rivea hypocrateriformis</i> Desr. Choisy	Covolvulaceae	Flower
<i>Clerodendrum inerme</i> (L.) Gaertner	Verbenaceae	Flower
<i>Gmelina asiatica</i> L.	Verbenaceae	Flower
<i>Excoecaria agallocha</i> L.	Euphorbiaceae	Tender shoots